

**PHASE 1A LITERATURE SEARCH AND SENSITIVITY ASSESSMENT &
PHASE 1B ARCHAEOLOGICAL FIELD RECONNAISSANCE SURVEY
WINSTON FARM WATER TREATMENT PROJECT**

496 ROUTE 212,
SAUGERTIES, ULSTER COUNTY, NEW YORK

PREPARED FOR:

WSP
4 RESEARCH DRIVE, SUITE 204
SHELTON, CT 06484



HUDSON VALLEY
CULTURAL RESOURCE CONSULTANTS, LTD.
3 LYONS DRIVE POUGHKEEPSIE, NY 12601

JANUARY 2020

MANAGEMENT SUMMARY

SHPO Project Review Number (if available):

Involved State and Federal Agencies:

Phase of Survey: **Phase 1A Literature Search and Sensitivity Assessment, and Phase 1B Archaeological Field Reconnaissance survey**

Location Information:

Location: **Winston Farm, 496 Route 212, Saugerties, NY**

Minor Civil Division: **Town of Saugerties**

County: **Ulster County**

Survey Area (English & Metric)

Length: **1395' / 425.3 m**

Width: **30' / 9.14 m**

Depth (when appropriate):

Number of Acres Surveyed: **1.15 acres (0.466 h)**

Number of Square Meters & Feet Excavated (Phase II, Phase III only): **N/A**

Percentage of the Site Excavated

Archaeological Survey Overview

Number & Interval of Shovel Tests: **39 @ 50' (15.24m) intervals**

Number & Size of Units: **N/A**

Width of Plowed Strips: **N/A**

Surface Survey Transect Interval: **N/A**

Results of Archaeological Survey

Number & name of precontact sites identified:

Number & name of historic sites identified: **0**

Number & name of sites recommended for Phase II/Avoidance: **No additional archaeological investigations recommended**

Results of Architectural Survey

Number of buildings/structures/cemeteries within Project APE: **0**

Number of buildings/structures/cemeteries adjacent to Project APE: **0**

Number of previously determined NR listed or eligible buildings/structures/cemeteries/districts: **1**

Number of identified eligible buildings/structures/cemeteries/districts: **2**

Report Author (s): **Beth Selig, MA, RPA.**

Date of Report: **January 12, 2020**

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I. PHASE 1A LITERATURE SEARCH AND SENSITIVITY ASSESSMENT

A. WINSTON WATER TREATMENT PROJECT DESCRIPTION

In December of 2019, Hudson Valley Cultural Resource Consultants (HVCRC) was retained by WSP to complete a Phase 1A Literature Search and Sensitivity Assessment and a Phase 1B Archaeological Field Reconnaissance Survey of the Winston Farm Water Treatment Project located west of I-87 in the town of Saugerties in Ulster County, New York.

The purpose of the Phase 1 Cultural Resources Survey is to determine whether previously identified cultural resources (historic and archeological sites) are located within the boundaries of the proposed project, and to evaluate the potential for previously unidentified cultural resources to be located within the boundaries of the Project Area of Potential Effect (APE). All work was completed in accordance with the *Standards for Cultural Resource Investigations and the Curation of Archeological Collections* published by the New York Archeological Council (NYAC) and recommended for use by New York State Office of Parks, Recreation and Historic Preservation (OPRHP). The report complies with New York State OPRHP's Phase 1 Archaeological Report Format Requirements, established in 2005.

The background research as well as the cultural and environmental overviews were completed by Brenna Chamberlain and Beth Selig, MA, RPA, President and Principal Investigator with HVCRC. A project site visit was conducted by Franco Zani Jr., on December 23, 2019 to observe and photograph existing conditions within the Project APE. The information gathered during the walkover reconnaissance is included in the relevant sections of the report.

The proposed project consists of constructing a Water Treatment building and supplemental water main on the Winston Farm property along the north side of Route 212 in Saugerties, New York. A water main will connect the treatment building to Route 212. The water main is proposed along an existing gravel roadway. The proposed undertaking also includes a backup generator east of the proposed treatment building. The well, treatment building and generator, will be located in a fenced enclosure.

The property is surrounded by other farmland and is located about 1.50 miles west of the village of Saugerties. The landscape within the Project APE consists of a compact gravel roadway, that leads to August Savage Road, north of the Winston Farm Property. The balance of the parcel is hay fields. The proposed water treatment facility is located within an agricultural field.

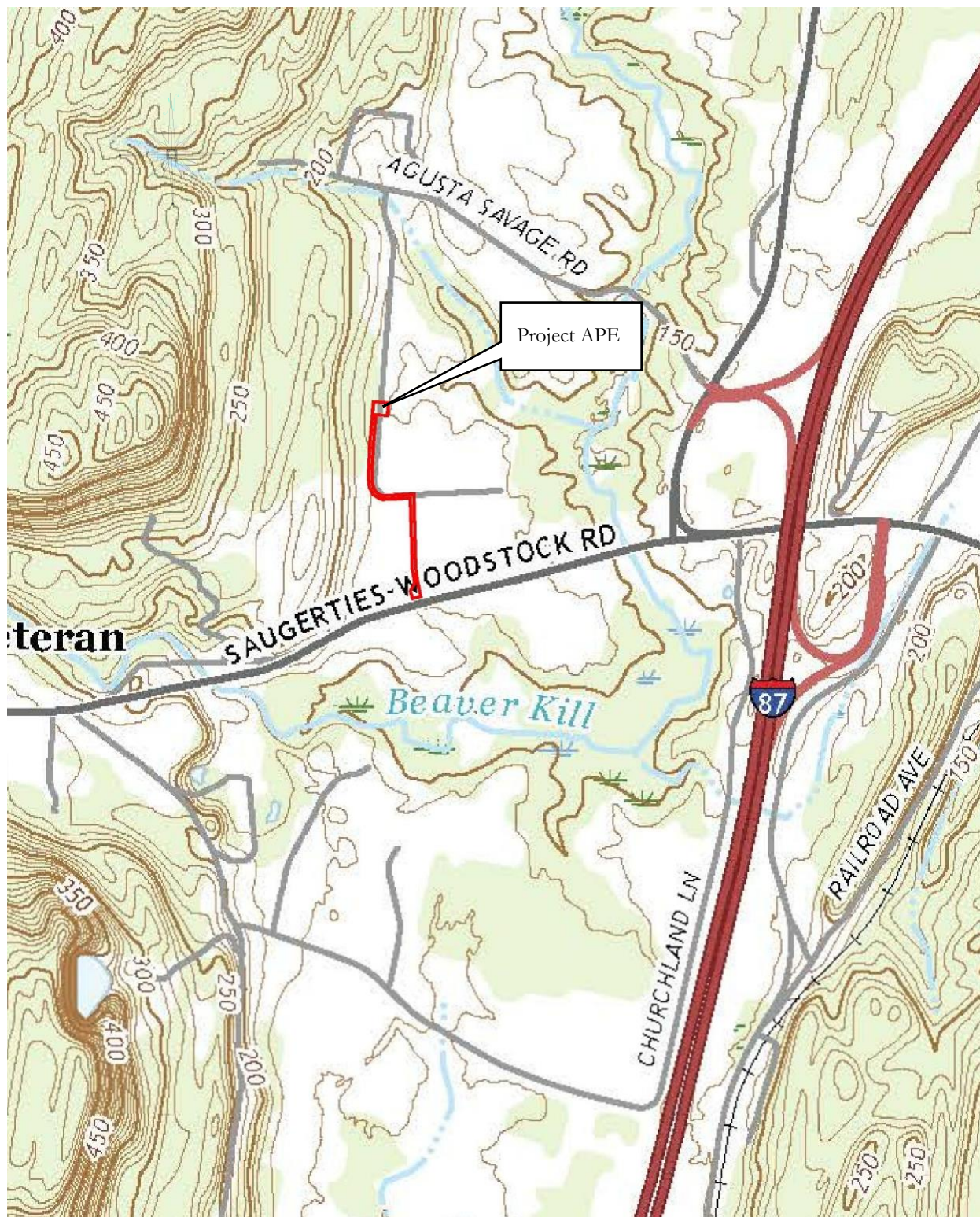


Figure 1: 2019 USGS Saugerties NY Topographical Quadrangle. 7.5 Minute Series. (Source: USGS.gov.)
Scale: 1"=400'.



Figure 2: 2018 USGS Aerial Image showing the location of the Project APE. (Source: Google Earth.) Scale: 1"=160'.



Photo 1: The proposed water line will be constructed within an existing gravel roadway. View to the north.



Photo 2: This roadway consists of compacted gravel. View to the north.



Photo 3: The proposed water treatment building is proposed next to an existing well. View to the east.



Photo 4: The existing well is located near the existing gravel roadway. View to the northwest.



Photo 5: The proposed water line will connect to exiting utilities along Route 212. View to the north.



Photo 6: View to the southeast from the proposed water line corridor toward Route 212.

B: ENVIRONMENTAL CONDITIONS

The Project APE is generally level with an elevation of 150' (xx m) Above Mean Sea Level, but rises slightly to 170' (51.8m) in the northern portion of the Project APE. The landscape consists of mown hay fields and a gravel driveway.

ECOLOGY

The project area lies within the Eastern Broadleaf Forest. This province is dominated by broadleaf deciduous trees featuring the drought-resistant oak-hickory varieties. The Northern reaches of the oak-hickory forest contain increasing numbers of maple, beech, and basswood (Bailey 1995).

GEOLOGY

The Hudson Highlands is the predominant, if not dominant, physiographic province of the eastern part of the Hudson River Valley. The Hudson Highlands province is a northeast-southwest trending band of igneous and metamorphic rocks which extend from New England through New York, crossing the Hudson River in the vicinity of Cold Spring and West Point.(Spectra 2004: Appendix C).

Surficial geological deposits distributed throughout the Hudson Valley consist of almost all of the types of glacial deposits that are associated with continental glaciation. The ice deposited a thick sequence of till over much of the area in the form of ground moraines (lodgment till), drumlins, and later, ablation till. The Hudson Highlands are almost entirely blanketed by a thin layer of glacial till, with frequent bedrock outcrops. Outwash sand and gravel occupy some of the river and stream valleys that border and run through the Highlands. Examples of these are the Ramapo and Mahwah Rivers and the Moodna and Woodbury Creeks. Recent alluvium is also found in most, if not all, of these valleys (Spectra 2004: Appendix C).

The bedrock of the Hudson Highlands is primarily composed of easily eroded sedimentary rock, such as siltstone, shale, and greywacke that was laid down in the Cambrian and Ordovician periods (USDA 2002:12). More specifically, the project area falls within the Austin-Glen Formation which is composed of greywacke and shale.

DRAINAGE

The Project APE is located approximately 1.20 miles (1.92 k) from the Esopus Creek, which drains into the Hudson River about 2.50 miles (4 k) from the Project APE. The soils are moderately well drained with areas of poorly drained depressions.

SOILS

Soil surveys provide a general characterization of the types and depths of soils that are found in an area. The characteristics of the soils within the Project APE have an important impact on the potential for the presence of cultural material, since the types of soils present affect the ability of an area to support human populations. The Soil Survey's mapped boundaries are considered approximate, as they generally correspond poorly to the actual boundaries of landforms and soils types within an area. The Natural Resources Conservation Service indicates that the soils within the Project APE are silt loam and channery silt loam (Table 1).



Figure 3: Aerial Image showing soil units within the property. Scale 1"= 50' (Source: Natural Resources Conservation Service)

Table 1: Soil Unit Descriptions (Source: Natural Resources Conservation Service)					
Map Unit Symbol	Map Unit Name	Soil Horizons & Texture	Slope	Drainage	Landform
HuB	Hudson silt loam	H1 - 0 to 7 inches: silt loam H2 - 7 to 25 inches: silty clay loam H3 - 25 to 38 inches: silty clay H4 - 38 to 60 inches: stratified silty clay to silt loam	3 to 8%	Moderately well drained	Lake plains
RhA	Rhinebeck silt loam	H1 - 0 to 10 inches: silt loam H2 - 10 to 35 inches: silty clay loam H3 - 35 to 50 inches: stratified silty clay to silt loam	0 to 3%	Somewhat poorly drained	Lake plains

C: RECORDED ARCHAEOLOGICAL SITES AND SURVEYS

To gather information on the history of the Project APE and the surrounding region HVCRC reviewed the combined site files of the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) and the New York State Museum (NYSM) for information regarding previously recorded archeological sites within one mile (1.6 km) of the Project APE. HVCRC also consulted OPRHP and regional Native American sources (e.g. Beauchamp 1900; Parker 1920; Ritchie 1980; Ritchie and Funk 1973) for descriptions of regional archeological sites. In addition, HVCRC consulted the files at the OPRHP for information regarding cultural resources within one half mile of the Project APE that might be listed on the State and/or National Register of Historic Places (S/NRHP).

PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES

Twenty-eight previously documented archaeological sites have been identified within a one-mile radius of the Project APE boundaries. A number of these sites, including the Snyder A Precontact site were recorded by Bill Reinhart who had interviewed local land owner, who allowed him to document their personal collections. These sites are listed in the table below, and will not be impacted by the proposed undertaking.

Table 2: Previously Recorded Archaeological Sites within a one - mile radius.				
SITE NUMBER	SITE NAME	PROXIMITY TO PROJECT APE	TIME PERIOD	SITE TYPE/ MATERIALS RECOVERED
11115.00002	W.H. Kipp Site	5280' / 1.2k	Historic	Historic residential site
11115.000028	Site Y	2640' / 0.8k	Precontact	Archaic and Middle Woodland period site
11115.000029	Reinhart Site U	2640' / 0.8k	Precontact	Location of a Neville point find
11115.000030	Reinhart Site V	2640' / 0.8k	Precontact	Fragment of bifacially worked chert
11115.000031	Reinhart Site D	2640' / 0.8k	Precontact	Biface of Western Onondaga Chert
11115.000032	Reinhart G	5280' / 1.2k	Precontact	Non-diagnostic projectile point
11115.000033	Reinhart Site F	5280' / 1.2k	Precontact	Side-notched point, debitage
11115.000034	Reinhart Site C	1320' / 0.4 k	Precontact	Normanskill Chert debitage
11115.000035	Reinhart Site B	2640' / 0.8k	Precontact	Eastern Onondaga chert debitage
11115.000037	Reinhart Site O	2640' / 0.8k	Precontact	Broken point base, and Jasper biface
11115.000039	Reinhart Site MNR	2640' / 0.8k	Precontact	Archaic and Middle Woodland period site, possible Paleoindian component
11115.000040	Reinhart Historic Site I	5280' / 1.2k	Historic	Folk/Faulk family burial ground
11115.000041	Reinhart Site E	2640' / 0.8k	Precontact	Debitage and spokeshave
11115.000057	Catskill Collection West Ridge Quarry Site	5280' / 1.2k	Precontact	Small quarry with a lithic reduction site
11115.000058	Catskill Collection East Ridge Quarry Site	5280' / 1.2k	Precontact	Small quarry with a lithic reduction site
11115.000060	Woodstock 2: Site 1 (Areas A & B)	1320' / 0.4 k	Precontact	Debitage, core, biface
11115.000061	Woodstock 2: Site 2 (Areas C & D)	2640' / 0.8k	Precontact	Debitage, core, biface& Hammerstone

11115.000062	Woodstock 2: Site 3 (Area E)	2640' / 0.8k	Precontact	Middle woodland period camp site
11115.000063	Woodstock 2: Site 4 (Area F)	2640' / 0.8k	Precontact	Debitage, core, biface& Hammerstone
11115.000064	Woodstock 2: Site 5 (Area G)	2640' / 0.8k	Precontact	Debitage, core, biface& Fire Cracked Rock
11115.000065	Woodstock 2: Site 6 (Area H)	3960' / 1.2 k	Precontact	Precontact quarry location,debitage and quarry tools
11115.000066	Saugerties Hotel 3	2640' / 0.8k	Precontact	Debitage of Onondaga chert, and hammerstones
11115.000099	Snyder A Prehistoric Site	1320' / 0.4 k	Precontact	More than 400 projectiles points were recovered during a survey.
11115.00028	Saugerties Hotel 1	3960' / 1.2 k	Precontact	Small lithic scatter
11115.000281	Saugerties Hotel 2	2640' / 0.8k	Precontact	Debitage of Onondaga chert, and hammerstones
11118.000013	Empire Bricks, Inc. Site	3960' / 1.2 k	Precontact	Archaic and Middle Woodland Camp site
NYSM 7329	Winston Farm Vicinity Sites	1320' / 0.4 k	Precontact	Early Archaic through contact period site
NYSM 8607	No Site Name	3960' / 1.2 k	Precontact	Quarry and Workshop

PREVIOUSLY COMPLETED ARCHAEOLOGICAL SURVEYS

As part of the research for this project, surveys completed for projects in the general area were consulted. A total of seven surveys have been completed within a one-mile radius of the Project APE. These surveys have along with the sites recorded have documented a number of Native American sites within the vicinity of the Project APE.

In 1997 Hartgen Archaeological Associates identified the Woodstock 2: Site 1 (Areas A & B) northeast of the Project APE. This site file indicates that a series of professional level surveys were completed within the Winston Farm property. This locus yieldeddebitage, quarry tools, a core and a biface. The site file indicates that the area was surveyed in 1993 (Report for Archaeological Potential, SEQR Parts 1A & 3, Winston Farm Property, Saugerties New York) and reviewed again in 1994(Site File Search results and Photo-documentation Proposed Parking Areas, Woodstock 2, and Woodstock 2 End of Field Letter), however, no record of the 1993 survey was found in the NYS OPRHP CRIS files.

D: NATIONAL REGISTER ELIGIBLE/LISTED SITES

The National Register Database and OPRHP files were reviewed to identify structures on or in the vicinity of the Project area that have been listed on the National Register of Historic Places or identified as National Register Eligible. There are two National Register Listed (NRL) properties within a one mile radius of the Project area. The Wynkoop Farm Tavern and Snyder Farm properties will not be impacted by the proposed project.

E: PRECONTACT AND HISTORIC CONTEXT

The following narrative of the history of the project area provides an evaluation of the potential for Native American sites or early European settlement sites to be present within the boundaries of the project area.

PRECONTACT SITE RESEARCH

During the Paleoindian period, mobile bands of hunter-gatherers occupied what is now New York State. These bands exploited the resources of the landscape by hunting game and gathering plants. Paleoindian sites have been documented in the upland regions a short distance from the Hudson River. Frequently, these sites are associated with sources of stone used as the raw material for tool making. Two Paleoindian sites located in Green County are the West Athens Hill site in the Town of Athens, north of Catskill, and the Kings Road site in the nearby Town of Coxsackie (Funk 1976). In addition, a Paleoindian component was identified at the Iroquois Gas Compressor Station in the Town of Athens, near the Native American Quarry known as Flint Mine Hill (HAA 1995). The Swale site, and Railroad 1 site are among the few well documented Paleoindian sites in the Hudson River Valley, however these sites are located some distance from the project area (Lothrop and Bradley 2012).

With the lowering of the water table during the archaic period, subsistence methods and technologies changed in response to climatic warming. This was accompanied by an increase in vegetation density and diversity, changing faunal migrations and a change in sea levels (Sirkin 1977). The Archaic Period was likely a time of incipient sedentism among the inhabitants of the area. Most of the Archaic sites identified in Ulster County are small, and lack traces of substantial dwellings and fortifications.

Changes in settlement and subsistence patterns that occurred during the Late Archaic period reflect an increased exploitation of coastal and riverine resources. Ground stone food processing tools are more common, reflecting an increase in processed plant resources in the diet. Projectile points commonly found at Late Archaic sites include narrow stemmed, broad stemmed and side notched types. The Laurentian Tradition of the Late Archaic is the most represented throughout New York State, and is subdivided into a series of phases: Vergennes, Vosburg, Sylvan Lake, River and Snook Kill. Archaic period sites have been identified along the banks of the Hudson River to the south of the project area in Tivoli and Hyde Park, as well as to the south at Bannerman's Island. The Archaic period is better represented within the Hudson Valley than any other precontact period.

The Woodland period is distinguished from the Archaic in part, by the use of ceramics. Horticulture, although practiced in other parts of North America at an earlier date, does not appear in this the Hudson River Valley until c. 1000 AD. The soil and moisture requirements for the cultivation of maize, beans, and squash created a marked change in the pattern of land use and the selection of locations for villages. It was no longer necessary for the entire group to move from place to place following a seasonal round of migration fueled by fluctuating sources of food. Cord marked ceramics became common during the Middle Woodland period, and incised vessels, many with a collar area, are typical of Late Woodland cultures.

In the general vicinity of the Project APE, precontact period sites have been identified along Rondout and Esopus Creeks, near their confluences with the Hudson River. At the time of European Contact, the Hudson Valley lay within the Mohican Indian territory which extended from the southern end of Lake Champlain, to western Dutchess County, and from the Schoharie Valley east to south central Vermont. By the early 1600s the preferred locations for settlements were hilltops overlooking the Hudson. While the Mohawk and other Iroquois inhabited palisaded villages for security, the general understanding is that the Mohicans never adopted this strategy for their settlements, but rather continued to inhabit small unfortified communities (Ritchie 1969).

At the time of European Contact and settlement, the project area was probably occupied by the Waoranecks (Warranawonkongs) who lived between Saugerties and Danns Kammer and especially within the Esopus, Wallkill and Shawangunk River valleys. The western boundary of their territory is unknown. This indigenous

group was likely a branch or clan related to the Munsee tribe, who were members of the Delaware linguistic family. The term Minsi or Munsee means people of the stony country (Ruttenber and Clark 1881). The Munsee are described by Becker (1993) as a horticultural nation, who supported their domestic subsistence through hunting and gathering (Hull 1996).

HISTORIC BACKGROUND

The northern boundary of the early town of Saugerties was a stream called Sayers Kill, where Barent Cornelis Vogle operated a sawmill in the 1650's for the Manor of Rensselaerwyck. The name Saugerties, means "Little Sawyer" in Dutch, a tribute to the early settlers of the region. The first settlers in the area included Myndert Mynderse who may have had a saw mill and farm, however Vogle and Mynderse left the region at the onset of the first Esopus War in 1658 (Purcell et. al.1992).

Three settlers purchased the parcels of land that form present day Saugerties, from the State Government in 1685. One was the Sawyerkill Lands, the second a large tract along the Beaverkill and the third, lands on both sides of the Esopus where it entered the Hudson River. In 1687 the riverfront parcel, near the confluence of the Hudson and Esopus Creek, was sold to Barent Burhans, whose granddaughter's husband built a ferry across the river to Clermont (Purcell et. al.1992).

In 1710, roughly 300 families who had emigrated from the Palatine region of Germany established camps on the east and west sides of the Hudson. Within the town of Saugerties the camp became known as the West Camp, with villages in the region known as Elizabeth, Georgetown and Newton. Sawmills were established within the camps along Esopus Creek. The Katsbaan area northeast of the village was settled before 1730 by Dutch farmers from the Kingston Commons and Palatines from along Esopus Creek. By 1732, the Palatine and Dutch settlers submitted a petition to deed Kaatsbaan to the Dutch Reformed Church, and upon receiving the land, they built stone church (Purcell et. al.1992).

After the Revolutionary War, settlers migrated to the county and settled within the Hudson Valley region. By the 1790's, Ulster County river ports prospered by catering to the needs of both inland settlers and New York City markets. Saugerties was organized from Kingston in 1811, and at that time the main hamlet contained 21 houses. Henry Barclay and his wife Catherine came to Saugerties from New York City in 1825. Barclay, an importer who had a strong business relationship with Robert L. Livingston, constructed a dam along the Esopus Creek. In 1828, he established the Ulster Iron Works to produce hoop and bar iron. This iron works perfected the puddling process, and made a much more refined and durable product than the iron that had been available on the market (Smith 2014). This iron would set the standard for the iron used during the Civil War.

In 1830, Barclay built a paper mill along the Esopus Creek, harnessing the hydropower of the Esopus, which at that time had only one set of falls. In addition to constructing the mills, Barclay laid out village streets and lots to organize the rapidly growing population and what would become the village of Saugerties (Smith 2014). One of Barclay's enterprises was the construction of a long raceway, or channel, through the small parcel of land that creates a bend in the Esopus, creating another set of falls at the Sheffield Paper Mill. The falls descend 40' from the location of the dam to its confluence at the Hudson River.

By the mid-nineteenth century, the village of Saugerties was incorporated and had established a number of industries including stone quarrying and a lead company. The stone quarries in Saugerties and in the foothills of the Catskills, brought about significant growth within the region (Sylvester 1880). The economy of the region was enhanced by the nearby transportation infrastructure, which included the railroad, the D&H Canal and the Hudson River. In the winter, the ice industry thrived along the river and the creek (Smith 2016). By

the late nineteenth century, a brick yard had been established in Glasco, and steam ships and tug boats routinely journeyed from Saugerties to New York City. The Saugerties and New York Steamboat Company was established in 1889, docking their boats near the Saugerties Lighthouse.

By the late nineteenth century, railroads including the West Shore Railway were built through the county. During the nineteenth century, Ulster County became a center for such industries as fishing, lumbering, tanning, dairy farming, stone quarrying, brick making, ice harvesting and papermaking. Most of these industries declined in the twentieth century for various reasons, including the depletion of resources, competition from more efficient operations and emerging technologies that made such industries as ice harvesting obsolete. The present day economy is primarily oriented toward tourism and agricultural pursuits.

In 1994, the Woodstock '94(Woodstock 2) American Music festival took place on the Winston Farm property. It rained the weekend of the event, causing it to be referred to a Mudfest & Mudfest '94. The event brought over 500,000 people to the farm fields. In 2014 a second concert series Hudson Music Project was hosted on the fields in over the course of three days in July.



Figure 4: Aerial Image showing Woodstock '94 at Winston Farm. Route 212 is located in the foreground. (Source: Recordonline.com)

CARTOGRAPHIC RESEARCH

HVCRC examined historical maps of Ulster County to identify possible structures, previous road alignments and other landscape features or alterations that could affect the likelihood that archeological and/or historic resources could be located within the Project APE. HVCRC consulted historical documents and maps available at the Library of Congress, Historic Map work, the New York Public Library and USGS.gov. These maps are included in this report, with the boundaries of the Project APE superimposed. Nineteenth century maps frequently lack the accuracy of location and scale present in modern surveys. As a result of this common level of inaccuracy on the historic maps, the location of the Project APE is drafted relative to the roads, structures, and other features as they are drawn, and should be regarded as approximate. The historic maps included in this report depict the sequence of road construction and settlement/development in the vicinity of the Project APE.

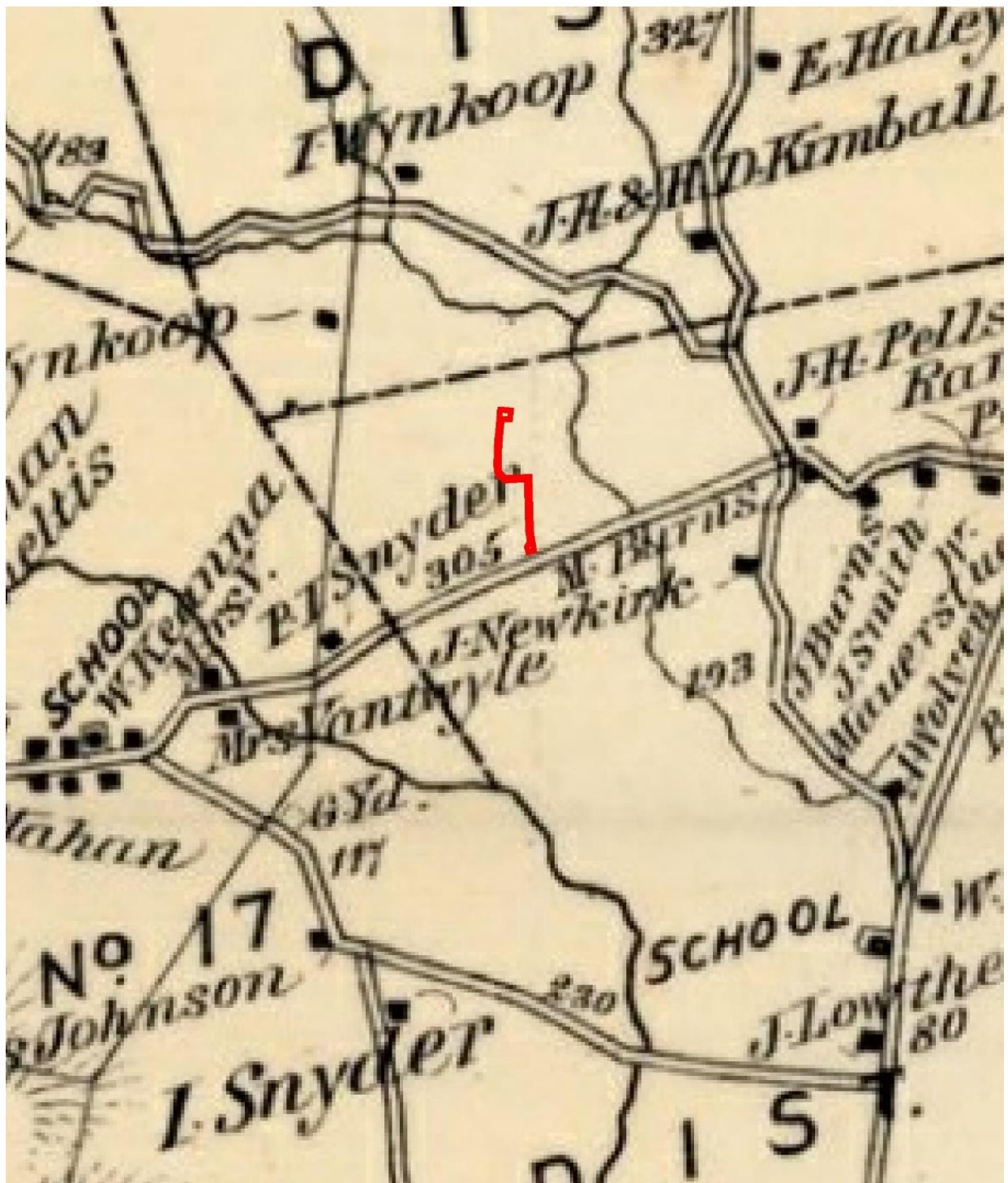


Figure 6: 1875 F.W. Beers. *Atlas of the County of Ulster County, Village of Saugerties*. (Source: Historic Map Works)
Scale: 1"=400'.

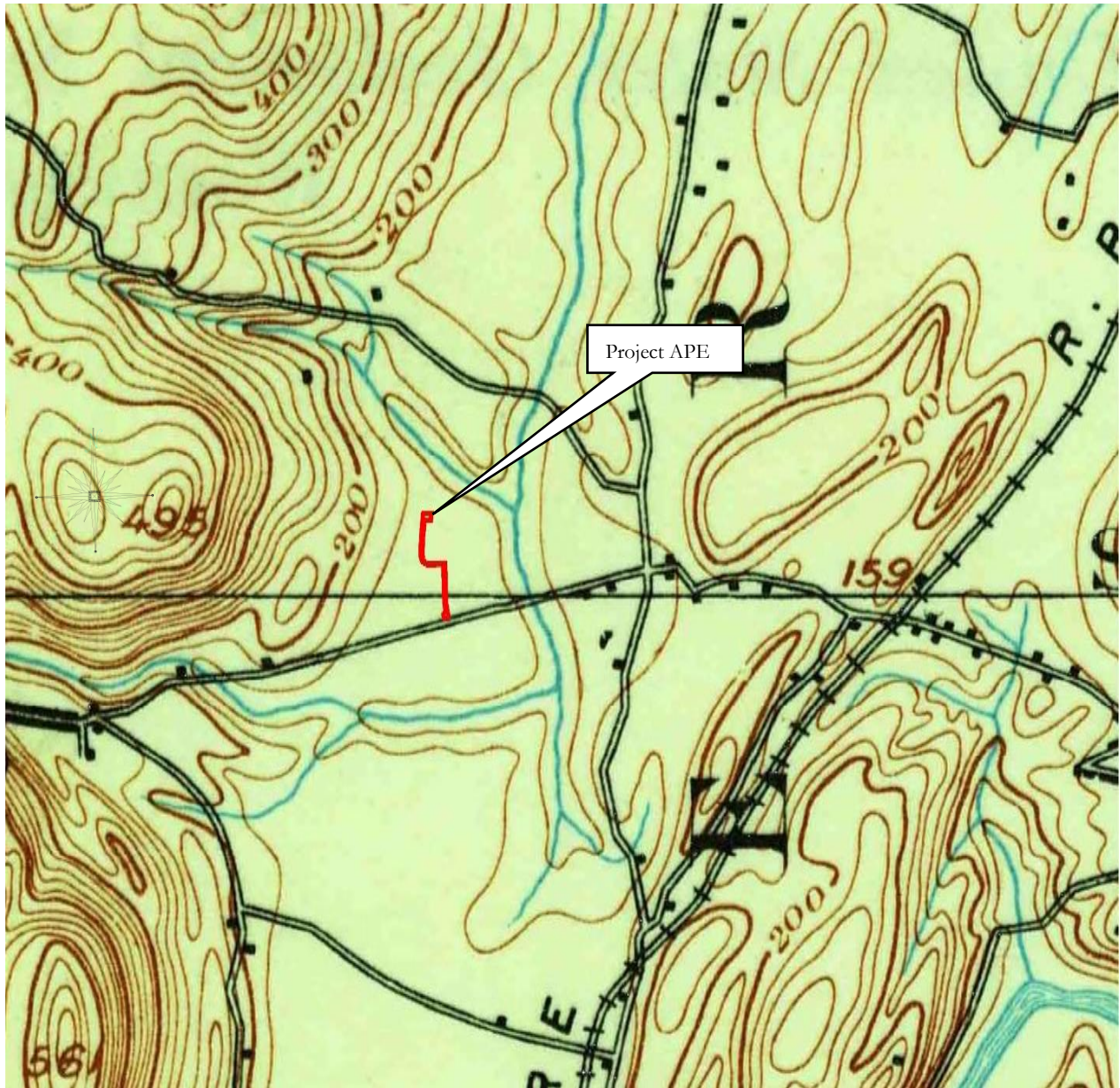


Figure 7: 1895 Catskill NY USGS Topographical Quadrangle (Source: USGS.gov) Scale: 1"=800'.

The 1895 USGS Topographical Quadrangle shows no new structures in the vicinity of the Project APE. The map shows streams flowing around the parcel, south into Esopus Creek. The West Shore railroad is located to the east of the APE. Augusta Savage Road is shown north of the APE, heading west into the Catskill Mountains.

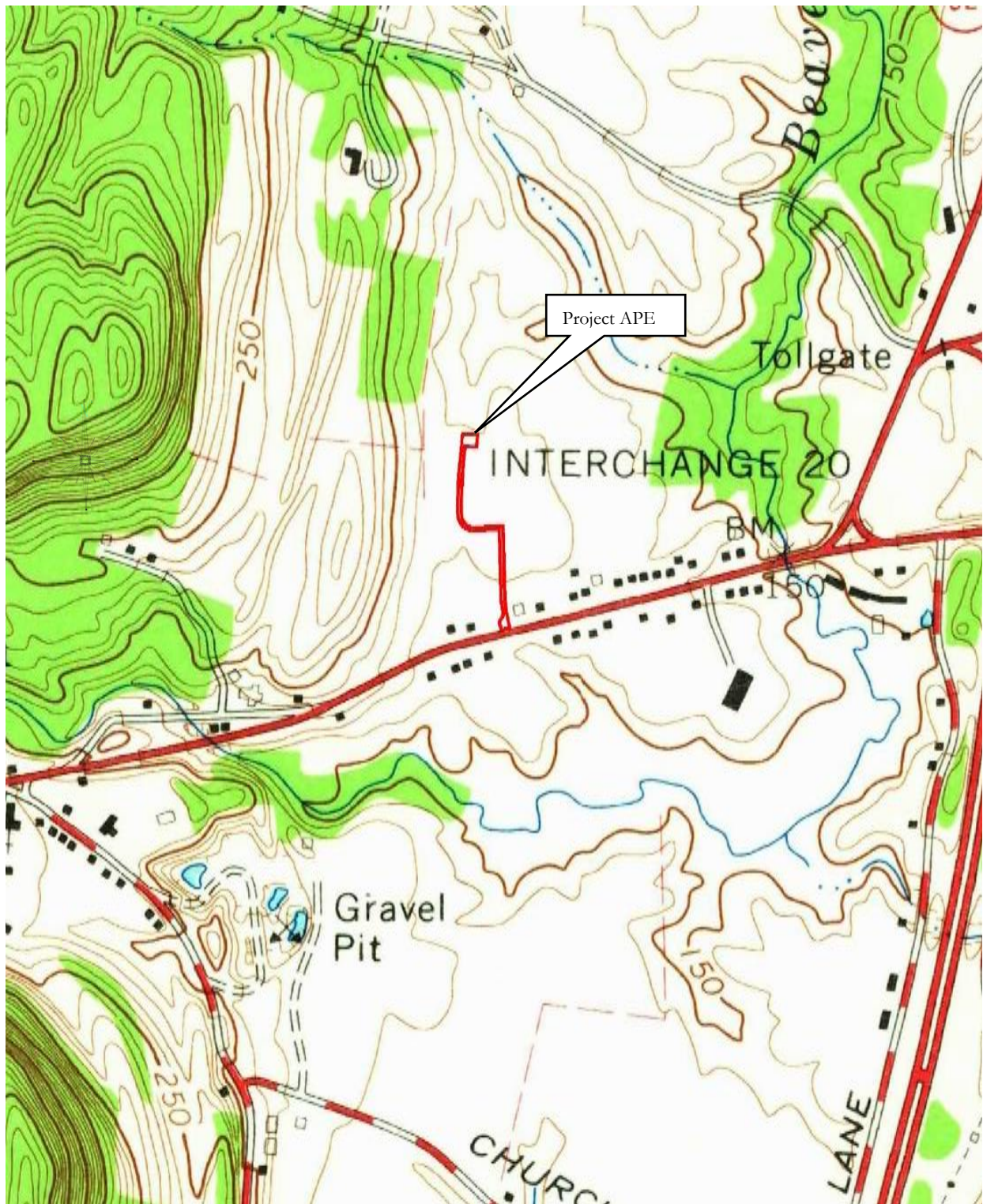


Figure 8: 1963 Saugerties USGS Topographical Quadrangle. (Source: USGS.gov) Scale: 1"=400'.

The 1963 Topographical Map indicates a more significant increase in infrastructure than the previous figures. Interstate 87 can now be seen to the west of the railroad. The population of the region has dramatically increased with and there has been an increase in structures both in the village of Saugerties and around the Project APE.



Photo 7: View to the southwest from the water line corridor toward Route 212.



Photo 8: View to the north along the route of the proposed waterline. Due to the compact nature of the gravel, as well as the depth of disturbance within the roadway, field investigations were completed alongside the existing roadway.



Photo 9: A water treatment facility is located to the east of the existing well. View to the south.



Photo 10: The proposed water line corridor will be placed within the center of the existing gravel driveway. View to the south.

F: ASSESSMENT OF SENSITIVITY FOR CULTURAL RESOURCES

An assessment of whether significant cultural resources are likely to be present within the Project APE must consider what is known of the history of the area, including likely locations of archaeological sites and proximity to known precontact sites. Disturbance to the landscape and the soils on the property are also considered in this assessment.

PRECONTACT SENSITIVITY

A number of previously identified precontact archaeological sites have been identified within the general vicinity of the Project APE. The Snyder A precontact site is has been identified to the southeast and east of the Project APE. The site form indicates that the collection of John A. Snyder contains over five hundred diagnostic projectile points. The site form includes a map indicating that the site encompasses the fields in which the Project APE is located, although specifies that it is located along the Beaver Kill. There is no indication in the notes on the site form if all the materials were recovered from the specified area, or when they were gathered. The site file also includes a partial field reconnaissance map, for a Phase 1 Survey completed on a property more than three miles to the southeast.

In 1994, Hartgen Archaeological Associates identified the Woodstock 2: Site 1 (Areas A & B) northeast of the Project APE. This site form indicates that a series of professional level surveys were completed within the Winston Farm property. This locus yielded debitage, quarry tools, a core and a biface. The site form indicates that the area was also surveyed in 1993, however, no record of this survey was found in the NYS OPRHP CRIS files. This survey took place in advance of the Woodstock '94 music festival. This event brought more than 500,000 people to the agricultural fields over a three day period. The site conditions during the event, caused a significant amount of soil movement and disturbance.

Based on the use history of the property, the existing conditions, and the nearby precontact sites the potential for the undisturbed portions of the APE to contain precontact materials is considered to be moderate to high.

HISTORIC SENSITIVITY

Cartographic research indicates that there are no structures within the boundaries of the Project APE. Structures are located along the northern side of Route 212. In addition no historic sites have been identified within the vicinity of the Project APE. Therefore potential for the presence of intact historic cultural resources is considered to be low.

G: SUMMARY AND RECOMMENDATIONS

The background research and the environmental conditions present within the Winston Farm Water Treatment Project indicate that the area is sensitive for precontact cultural resources. It is therefore recommended that a Phase 1B Archaeological Field Reconnaissance Survey be undertaken within the Winston Farm Water Treatment Project APE.

II. PHASE 1B ARCHAEOLOGICAL FIELD RECONNAISSANCE SURVEY

H: ARCHAEOLOGICAL SURVEY METHODOLOGY

The results of the Phase 1A confirmed that the Project APE is located in an area of precontact period activity. In addition, the landscape closely conforms to an ecological model that indicates that the level, undisturbed portions of the Project APE are moderate to highly sensitive for precontact cultural materials. Phase 1B field investigations took place on December 23, 2019, under the supervision of Beth Selig, MA, RPA.

Areas selected for subsurface testing were identified during an intensive walkover inspection, which evaluated the landscape to determine areas of prior disturbance, slopes in excess of 12% grade, saturated or wet soils and document evidence of former land usage. Shovel tests were excavated at intervals of 50' (15m) along transects conforming to the land surface and the boundaries of the Project APE. The locations of the tests and disturbed areas were recorded on a scaled map that shows surveyed borders and the locations of the various structures or features identified (Field Reconnaissance Map).

Shovel tests (STs), approximately 45 cm in diameter, were spaced 50 feet apart and excavated at least 10 cm into sterile subsoil, unless impeded by rocks or other obstructions. This subsurface testing strategy was applied in areas of undisturbed soils and that were well drained and did not contain surface water. All soils excavated from shovel tests were screened through 0.25-inch hardware cloth. Shovel test profiles were recorded on standard field forms, which included stratigraphic depths, Munsell soil color, texture and inclusions, disturbances and artifacts (Appendix A). The presence of clearly modern materials, such as plastic fragments, modern bottle glass fragments, or twentieth-century architectural materials were noted on field forms, but HVCRC does not generally collect these materials for analysis or inclusion in the artifact assemblage. Had precontact period artifacts been recovered from shovel tests they would have been bagged, and labeled with standard project provenience information. Following completion of the archaeological fieldwork, all recovered materials would be washed, identified, inventoried and re-bagged in labeled clean 4-mil archival quality plastic bags. Any recovered artifacts would have been identified and described based on material type and standard descriptive characteristics and included in an artifact inventory.



Photo 11: Shovel tests were excavated on the eastern and western sides of the roadway, due to it's built up and compacted gravel. View to the north.



Photo12: The gravel roadway consisted of compacted gravel that was dense and impenetrable.



Photo 13: View to the north toward ST39.



Photo 14: View to the north from ST 34 toward ST 36.

I: ARCHAEOLOGICAL SURVEY RESULTS

Field investigations began with a comprehensive walkover of the proposed Project APE, in the southern portion of an open agricultural field. This area has experienced prior disturbance in the form of road construction. The infrequent use of the field as a music venue may have caused a substantial disturbance to the soils, however the extent of that is undetermined. The existing roadway was used in 1994 and 2014 to provide access the property for the music festivals, and subsequently has been used to install and maintain the existing well.

Field investigations began in the southern portion of the Project APE, adjacent to the northern side of Route 212. The shovel tests began to the north of a road drainage ditch and entrance gate. The shovel tests were placed alongside the existing gravel roadway and progressed north across the Project APE. The soils encountered consisted of a brown silty clay overlying a yellow brown silty clay. Recovered cultural material consisted of a few fragments of cinderblock and plastic.

Two additional transects were completed in the location of the proposed water treatment facility. These transects were aligned south to north, and contained three shovel tests each. The soils in this portion of the Project APE consisted of a dark yellowish brown silty clay with gravel overlying a yellow brown silty clay and light yellow brown silty clay.

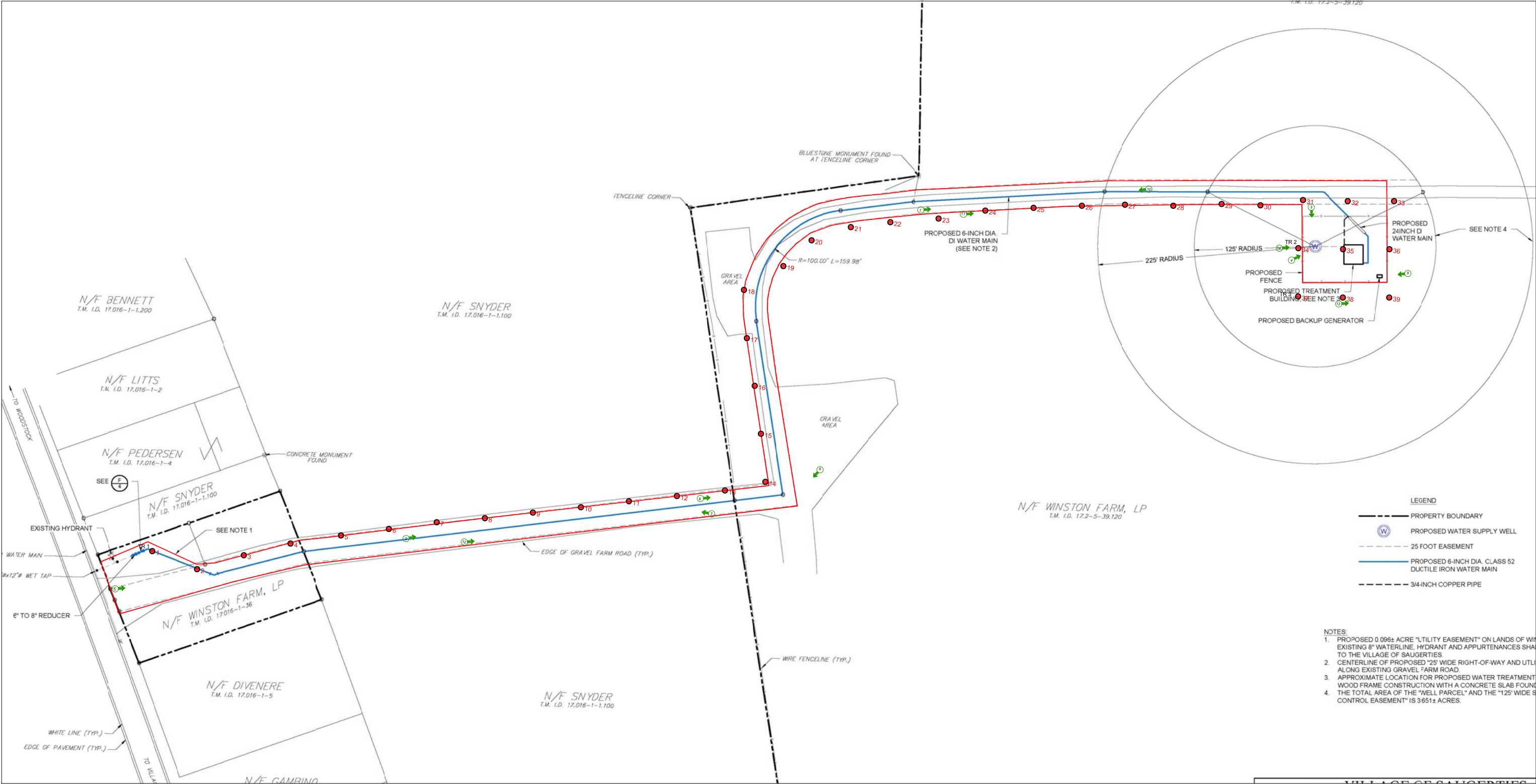
A total of thirty-nine shovel tests were completed within the Project APE. No significant cultural material was recovered from these shovel tests.

J: SUMMARY AND CONCLUSIONS

In December of 2019 Hudson Valley Cultural Resource Consultants completed a Phase 1A Literature Search and Sensitivity Assessment and Phase 1B Archaeological Field Reconnaissance Survey of the proposed Winston Farm Water Treatment Project, in the Town of Saugerties, Ulster County, New York. The survey was undertaken in the location of the proposed water treatment facility and waterline corridor.

The background research identified significant precontact sites within the Winston Farm property. This property was surveyed at the level of a Stage 1 Archaeological Survey (Report for Archaeological Potential, SEQR Parts 1A & 3) by Hartgen Archaeological Associates. The parcel was also assessed in 1994, as part of a photo-documentation and Site file review, in advance of the Woodstock 1994 festival. The infrequent use of the property for music festivals, may have impacted the previously identified precontact sites. The existing gravel road was utilized most recently for the 2014 Music festival and for the installation and maintenance of the existing well.

Thirty-nine shovel tests were completed within and adjacent to the Project APE. No significant cultural material was identified during the Phase 1 Cultural Resource Survey.



HUDSON VALLEY Cultural Resource Consultants, Ltd.

Figure 9: Winston Farm Water Treatment Project
Phase 1B Field Reconnaissance Map
Scale 1" = 100'

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ST

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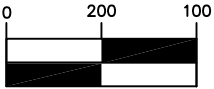
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Sterile Shovel Test Location

Photographic View

Area of Potential Effect Boundaries



(IN FEET)
1 inch = 100 ft.



K: RECOMMENDATIONS

Based on the results of the survey, no archaeological sites are located within the boundaries of the Project APE. Therefore, it is the opinion of Hudson Valley Cultural Resource Consultants that no additional work is needed for the Winston Farm Water Treatment Project.

These recommendations are subject to concurrence by the New York State Office of Parks, Recreation and Historic Preservation.

L: BIBLIOGRAPHY

- Bailey, Robert C.
1995 Description of the Ecoregions of the United States.
<http://www.fs.fed.us/land/ecosysmgmt/index.html>. Accessed December 18, 2019.
- Bachman, Charles and C.H. Corey.
1858 *Map of Ulster County, New York from Actual Surveys*. Gillette, Philadelphia, Pennsylvania.
- Beauchamps, William M.
1900 *Aboriginal Occupation of New York*. *New York State Museum*. Bulletin Number 32. Volume 7. The University of the State of New York: Albany, NY.
- Becker, Marshall J.
1993 The Lenape and Other “Delawarean” Peoples at the time of European Contact: Populations Estimates derived from Archaeological Historical Sources. *Journal of the New York State Archaeological Association*. #105 spring.
- Beers, F.W.
1875 *County Atlas of Ulster, New York*. Andreas Baskin & Burr: Chicago, IL.
- Beers, J.B & Co.
1884 *History of Ulster County New York with Biographical Sketches of its Prominent Men*. J.B. Beers. New York.
- Burgher, Bruce
1983 Town of Ulster, History of Ulster County, with Emphasis on the Last 100 Years, compiled by the Historians of Ulster County, for the Tercentenary Year 1983.
- Child, Hamilton
1872 Gazetteer and business directory of Ulster County, N.Y. for 1871-2. Syracuse, Printed at the Journal office.
- Croswell, E.
1838 *Laws of the State of New York. Passed at the Sixty-First Session of the Legislature*. Wm.A. Gould & Co. Albany.
- de Laubenfels, D.C.
1975 *Mapping the World's Vegetation: Regionalization of Formations and Flora*. Syracuse University Press.
- Domack, E.W. (Ed.), Lothrop, J.C., Bradley, J.A.,
2012 *Paleoindian Occupations in the Hudson Valley, New York*. Texas A & M University Press.
- Dunn, S.
1994 *The Mohican's and Their Land*. Purple Mountain Press. Fleischmann's NY.
- Eisenstadt, Peter ed.
2005 *The Encyclopedia of New York State*. Syracuse University Press, Syracuse, NY.
- Fisher, Donald W., Yngvar W. Isachsen, Lawrence V. Rickard
1970 *Geologic Map of New York, Lower Hudson Sheet*. New York State Museum and Science Service Map and Chart Series No. 15. New York State Museum, Albany, New York.
- French, J.
1860 *Historical and Statistical Gazetteer of New York State*. R. P. Smith Publisher, Syracuse, N.Y.
- Funk, Robert E.
1976 *Recent Contributions to Hudson Valley Prehistory*. New York State Museum Memoir 22. Albany, NY.

- Hart, J. P., and H. J. Brumbach.
2005. Cooking Residues, AMS Dates, and the Middle-to-Late Woodland Transition in Central New York. *Northeast Anthropology* 69:1–34.
- Hartgen Archaeological Associates (HAA)
1995 *Report of Archeological Investigation for the Proposed Athens Compressor Station, County Route 28, Town of Athens, Columbia County, New York.*
- Hope Farm Press
n.d. Timeline of Saugerties History. Web Accessed 4/23/2018.
- Isaachson, Y.W.
1977 *The Geology of New York: A Simplified Account.* New York State Museum.
- Küchler, August W.
1964 *Potential Natural Vegetation of the Conterminous United States.* American Geographical Society, New York.
- Lavin, L., F. Gudrian and L. Miroff.
1993 Precontact Pottery from the Morgan Site, Rocky Hill, Connecticut. *Bulletin of the Archaeological Society of Connecticut* 56:63–100
- Lothrop, J.C., J. Bradley, S. Sweeney
2012 Paleoindian Occupations in Central New York. *Glacial Geology of Cayuga County of the Eastern Finger Lakes: Lakes, Lore and Landforms.* 77th Annual Reunion of the Northeastern Friends of the Pleistocene Field Conference 2014. 90-101
- Natural Resources Conservation Service
<http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Accessed December 18, 2019.
- New York State Archaeological Council (NYAC)
1994 *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State.* New York Archaeological Council.
- New York State Office of Parks Recreation and Historic Preservation CRIS
cris.parks.ny.gov Web Accessed December 18, 2019.
- Parker, Arthur
1920 *Archaeological History of New York.* New York State Museum Bulletin. No. 237 and 238. The University of the State of New York: Albany, NY.
- Purcell Barbara, Alex Wade and Kathleen Gray and Alex Wade
1992 Historic Saugerties on the Hudson. Published by the Saugerties Historical Society.
- Ritchie, William A.
1980 *The Archaeology of New York State.* Harbor Hill Books: Harrison, NY. [Revised edition]
- Ritchie, William A. and Robert Funk
1973 *Aboriginal Settlement Patterns in the Northeast.* Memoir 20. New York State Museum and Science Service. Albany, NY.
- Ross, Claire L., and Edward R. Kozacek
1976 *Ulster County, New York, '76 Bicentennial Overview: Beginnings and Background.* Ulster County Legislature, Catskill, New York.
- Ruttenber, E. M. & L. H. Clark (Editors)

- 1881 History of Orange County, New York with Illustrations and Biographical Sketches of Many of Its Pioneers and Prominent Men. Everts & Peck, Philadelphia, PA.
- Salomon, Julian H.
- 1983 "Munsee and Mahican: Indians of Ulster County." Ulster County Historical Society Yearbook: 68. Poughkeepsie: NY.
- Shaver, Peter (compiler)
- 1992 *The National Register of Historic Places in New York State*. Preservation League of New York State: Albany, NY.
- Sirkin, L.
- 1977 Late Pleistocene Vegetation and Environments in the Middle Atlantic Region. In *Amerinds and Their Paleoenvironments in Eastern North America*, ed. by W. S. Newman and B. Salwen. Annals of the New York Academy of Sciences 288: 206-217.
- Smith, James H.
- 1880 *History of Ulster County, New York*. D. Mason & Co.: Syracuse, NY.
- Smith, Michael Sullivan
- 2016 A Brief History of Saugerties. The History of Press
- 2014 The Forgotten Mills of Saugerties. Web. Accessed May 7, 2018.
- Snow, Dean R.
- 1980 *The Archaeology of New England*. Academic Press: New York, NY.
- Stilgoe, John R.
- 1982 *Common Landscape of America, 1580-1845*. Yale University Press: New Haven, CT.
- Sulavik, Stephen B
- 2005 *Adirondack: of Indians and Mountains 1535-1838*. Purple Mountain Press. New York.
- Sylvester, Nathan.
- 1880 *History of Rensselaer County with Illustrations and Biographical Sketches of Some of its Prominent Men and Pioneers*. Everts & Peck. Philadelphia.
- Tillson O.J. and P Brink
- 1854 *Map of Ulster County, New York*.
- United States Department of the Interior.
- 2000 National Register Bulletin. Guidelines for Evaluating and Registering Archeological Properties. National Park Service. Washington, D. C.
- 1985 National Register Bulletin # 24: Technical Information on Comprehensive Planning, Survey of Cultural Resources, and Registration in the National Register of Historic Places. Reprint. National Park Service, Interagency Resources Division. Washington, D.C.
- United States Geological Survey
- 2019 United State Geological Survey Topographical Map Saugerties Quadrangle. 7.5 Minute Series.
- 1965 United State Geological Survey Topographical Map Saugerties Quadrangle. 7.5 Minute Series.
- 1895 United State Geological Survey Topographical Map Catskill Quadrangle. 7.5 Minute Series.

APPENDIX A: SHOVEL TEST RECORDS

Transect	ST	Level	Depth (in)	Depth (cm)	Munsell	Soil Description	Cultural Material
TR 1	1	1	0-15	0-37	10YR3/3	Dark brown silty loam	NCM
		2	15-19	37-48	10YR6/4	Light yellow brown silty clay	NCM
	2	1	0-10	0-25	10YR6/4	Light yellow brown silty clay, terminated at buried cinder block	cinder block fragments (discarded)
	3	1	0-10	0-26	10YR4/3	Brown silty clay	NCM
		2	10-15	26-38	10YR5/6	Yellow brown silty clay	NCM
	4	1	0-4	0-11	10YR4/3	Brown silty clay	NCM
		2	4-12	11-30	10YR5/6	Yellow brown silty clay	NCM
	5	1	0-9	0-23	10YR4/3	Brown silty clay	NCM
		2	9-15	23-38	10YR5/6	Yellow brown silty clay	NCM
	6	1	0-8	0-21	10YR4/3	Brown silty clay	NCM
		2	8-14	21-35	10YR5/6	Yellow brown silty clay	NCM
	7	1	0-11	0-28	10YR4/3	Brown silty clay	NCM
		2	11-16	28-41	10YR5/6	Yellow brown silty clay	NCM
	8	1	0-10	0-25	10YR4/3	Brown silty clay with cobbles	NCM
		2	10-14	25-36	10YR5/6 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM

Transect	ST	Level	Depth (in)	Depth (cm)	Munsell	Soil Description	Cultural Material
	9	1	0-11	0-28	10YR4/3	Brown silty clay with cobbles	NCM
		2	11-16	28-40	10YR5/6 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	10	1	0-11	0-27	10YR4/3	Brown silty clay	NCM
		2	11-15	27-37	10YR5/6	Yellow brown silty clay	NCM
	11	1	0-8	0-20	10YR4/3	Brown silty clay	plastic (discarded)
		2	8-12	20-31	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	12	1	0-9	0-22	10YR4/3	Brown silty clay	NCM
		2	9-13	22-33	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	13	1	0-5	0-12	10YR4/3	Brown silty clay	NCM
		2	5-10	12-25	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	14	1	0-7	0-19	10YR4/3	Brown silty clay	NCM
		2	7-12	19-30	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	15	1	0-13	0-34	10YR4/3	Brown silty clay	NCM
		2	13-18	34-46	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM

Transect	ST	Level	Depth (in)	Depth (cm)	Munsell	Soil Description	Cultural Material
	16	1	0-9	0-23	10YR4/3	Brown silty clay	NCM
		2	9-14	23-35	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	17	1	0-7	0-17	10YR4/4	Dark yellowish brown silty clay with gravel and cobbles	NCM
		2	7-12	17-30	10YR4/3	Brown silty clay with cobbles	NCM
		3	12-16	30-40	10YR6/4	Light yellow brown silty clay	NCM
	18	1	0-8	0-21	10YR4/3	Brown silty clay with gravel	NCM
		2	8-13	21-32	10YR5/6 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	19	1	0-7	0-19	10YR4/4	Dark yellowish brown silty clay	NCM
		2	7-12	19-30	10YR5/6	Yellow brown silty clay	NCM
	20	1	0-11	0-28	10YR4/4	Dark yellowish brown silty clay	NCM
		2	11-16	28-40	10YR5/6	Yellow brown silty clay	NCM
	21	1	0-12	0-30	10YR4/4	Dark yellowish brown silty clay	NCM
		2	12-16	30-40	10YR5/6	Yellow brown silty clay	NCM
	22	1	0-12	0-30	10YR4/4	Dark yellowish brown silty clay	NCM
		2	12-16	30-40	10YR5/6	Yellow brown silty clay	NCM

Transect	ST	Level	Depth (in)	Depth (cm)	Munsell	Soil Description	Cultural Material
	23	1	0-10	0-26	10YR4/4	Dark yellowish brown silty clay with gravel	NCM
		2	10-15	26-38	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	24	1	0-9	0-23	10YR4/4	Dark yellowish brown silty clay with gravel	NCM
		2	9-13	23-33	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	25	1	0-10	0-25	10YR4/4	Dark yellowish brown silty clay with gravel	NCM
		2	10-15	25-37	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	26	1	0-12	0-31	10YR4/4	Dark yellowish brown silty clay with gravel	NCM
		2	12-17	31-44	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	27	1	0-11	0-29	10YR4/4	Dark yellowish brown silty clay with gravel	NCM
		2	11-16	29-40	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	28	1	0-11	0-29	10YR4/4	Dark yellowish brown silty clay with gravel	NCM
		2	11-17	29-43	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	29	1	0-12	0-30	10YR4/4	Dark yellowish brown silty clay with gravel	NCM
		2	12-16	30-41	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM

Transect	ST	Level	Depth (in)	Depth (cm)	Munsell	Soil Description	Cultural Material
	30	1	0-12	0-30	10YR4/4	Dark yellowish brown silty clay with gravel	NCM
		2	12-17	30-42	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	31	1	0-14	0-36	10YR4/4	Dark yellowish brown silty clay with gravel	plastic (discarded)
		2	14-18	36-46	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	32	1	0-11	0-29	10YR4/4	Dark yellowish brown silty clay with gravel	NCM
		2	11-17	29-43	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	33	1	0-12	0-30	10YR4/4	Dark yellowish brown silty clay with gravel	NCM
		2	12-16	30-41	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
TR 2	34	1	0-12	0-31	10YR4/4	Dark yellowish brown silty clay with gravel	NCM
		2	12-18	31-46	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	35	1	0-9	0-22	10YR4/4	Dark yellowish brown silty clay with gravel	NCM
		2	9-14	22-35	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	36	1	0-15	0-37	10YR5/6 & 10YR6/3	Yellow brown silty clay and pale brown silty clay	NCM

Transect	ST	Level	Depth (in)	Depth (cm)	Munsell	Soil Description	Cultural Material
TR 3	37	1	0-14	0-35	10YR4/4	Dark yellowish brown silty clay	NCM
		2	14-18	35-45	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	38	1	0-15	0-38	10YR4/4	Dark yellowish brown silty clay	NCM
		2	15-19	38-49	10YR5/4 & 10YR6/2	Yellow brown silty clay and light yellow brown silty clay	NCM
	39	1	0-9	0-22	10YR5/6 & 10YR6/3	Yellow brown silty clay and pale brown silty clay	NCM

Transect	ST	Level	Depth (in)	Depth (cm)	Munsell	Soil Description	Cultural Material